

Public Health and the Social Sciences

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PUBLIC health physicians and their professional colleagues have an implied responsibility for assisting peoples of the world to improve the shape of their affairs. Let us consider what the world role of public health may be and how the social sciences may be of use in playing it.

The social sciences occupy a strange place in the world of learning. They are not quite accepted in the parlor, but it is being increasingly recognized that they are cooking something promising in the kitchen. James B. Conant, struggling in his Terry lectures with the question of the place of the social sciences on today's scene, concludes that perhaps the social scientist should be considered a social philosopher and points out what a sterling word "philosopher" really is. Alfred North Whitehead, considering the place of science in the modern world, finds a tendency for the natural sciences to fall into grooves and to miss the necessary comprehension of man's life among men. Despite the great accomplishments of the natural sciences, we have, he says, no expansion of wisdom, when we are in greater need of it than ever before.

Do the social sciences, as a philosophy in the original Greek sense, perhaps fit into the niche that is vacant? Do they, in dealing with the problems of man's relation to man, somehow provide, or at least promise, a bridge between the coldness of the test tube and the warmth of human feelings?

The social sciences consist only of attempts to apply known techniques of observation, experimentation, and logic to man's total be-

havior as a rational and emotional animal, and to the groups through which he acts and relates himself to others. They are attempts to look at human feelings through the test tube.

Again, as in the case of the natural sciences, grooves form: psychology, social psychology, sociology, economics, anthropology, and so on. Knowledge today is so vast that it must be organized. It is necessary to make certain that such organization does not create intellectual iron curtains. Rather, it must create bridges between areas of thought and knowledge.

Science proceeds by the formulation and testing of concepts, amending, enlarging, and replacing them as fact and experience, seen through the glass of wisdom, may dictate. The social sciences may, because of the material with which they deal, be expected to develop broadening concepts dealing with man's relations with man, concepts which when institutionalized may lead to a richer life. The United Nations did not arise full-formed, Venus-like from the sea, but is the institutionalization of concepts that have developed and progressed through the centuries. Thucydides, in fact, set the philosophical and political stage for the United Nations when he said that discussion does not block action but is the only precursor to action that wisdom can allow.

On the basis of what we have seen of the social sciences to date, should we be frustrated and throw up our hands in despair? Raymond Fosdick, in his thoughtful treatment of the social sciences in the Story of the Rockefeller Foundation, says that "unless we find successful solutions to some of the intricately complex and fast-growing problems of human relationship, we run the risk of having a world in which public health and medicine are of little signifi-

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cance." He further cautions against impatience in this difficult task, saying, "The impatient analogy between the spectacular progress of public health and medicine and what could conceivably be accomplished by the social sciences is basically unsound. Human emotions and prejudices, unlike human diseases, do not yield easily to rational solutions. We can look forward to no mechanistic answers which will automatically solve the problems of human adjustment. The assumption has to be made that there is time for intelligence to take hold, and students of society have to presuppose the opportunity for long-maturing work." The Rockefeller Foundation and more lately the Ford Foundation are betting hundreds of millions of dollars on this assumption.

The Relation to Public Health

How does this relate to public health? to members of the profession?

Public health is in a unique position in relation to man and his communities. It is also an activist cult, the self-imposed business of which is to change man's behavior. Because of its opportunity and its activities, public health has an obligation to study, within its own field of vision, the processes that affect man's behavior. We are the high priests of an activist cult. We must accept the responsibilities of priesthood, unless we are to become practitioners of a stultified priestcraft such as served their own purposes under the protecting wings of Amen-Ra in far-off times. We must learn not only how, but whether and when to activate. The social sciences offer the best available avenue for the exploration of the city of fact and relationship in which each of us lives—to obtain a better comprehension of the community of man and how best to modify it in the interests of man.

The trouble of our times, great in scope and profound, is based on man's failure in governing his relationship to himself. The connection with public health may appear at first glance to be loose and remote. Such is not the case: Health today is not on the periphery of history but at or very near its center. In the most populous areas of the world where

the masses are sick, it is one of the major factors affecting man's relationship to himself and to his environment.

One phase of the role of public health in the world today is its modification of man's relationship to himself and to his environment. This modification initiates chain reactions in the social and economic spheres, the end of which is not always, if ever, in sight. Public health has, for instance, launched a vast malaria eradication program, with a view to eliminating the 300 million cases of malaria that once occurred each year. A number of countries, including our own, have already attained the objective of eradication, and the world goal is not an impossible one. Can we foresee the ultimate effects on mankind of such a change? We know it will have effects on man's ability to produce. It will provide increased labor in the fields during planting and harvesting time; it will open up new lands; it will make man more alert and educable. Yes, and it will increase the population where populations are already dense. These changes will in turn have their own effects, and these can be foreseen but dimly.

The world can never again be what it once was. Asia, particularly the areas in the tropics and semitropics and the Middle East, and Latin America are not the same as they were even a short time ago. Their relationships with other more advanced parts of the world in northern Europe and North America are changing, and will change, deeply and fundamentally. Health has a causal relationship to this great historical change. This we cannot avoid, but we can try to understand it and to lead it in a direction that is right by our moral view.

The second phase of the role of public health stems from its peculiarly close association with man and the community. Here is the opportunity for public health to add to the understanding of the human processes that make history. Historic events are due to the working in the macrocosm, the world, of forces that are also at work in the microcosm of our own communities. These forces can be isolated, analyzed, and understood with more precision in the microcosm. On the larger stage they are often lost in the very vastness of the scene.

Understanding the Individual

What are these forces that we need to understand? One is the behavior of individuals in settings of various complexities. What are the forces that influence the individual? This may not seem relevant when we are considering the world stage, but it is. The world is run by human beings, each an individual shaped by a multitude of antecedent forces. Often the individual is lost in the vastness of the action that he has taken or influenced, but all world actions are the result of the component forces at work on the world stage, and those forces are transmitted through individuals and modified by transmission. Personal pique and animosity, emotional reactions, individual blind spots play their role internationally as they do at home, affecting the course of history.

At Versailles, after World War I, Masaryk, the father of Czechoslovakia, was one of the great leaders. He was known for his wisdom, his ideals, and thus was able to give leadership and direction to the shaping of the new Europe. Only on one point did he become irrational and obstructive. He insisted upon the inclusion within Czechoslovakia of a small nipple of land that projected beyond the proposed borders of Czechoslovakia into what was logically a part of Poland. Why did he do this? Because his birthplace, his hometown, lay within that area. Thus it is men who make the events of history and men that need to be understood. Public health deals with men and has a chance, perhaps, to understand men and thus to enable them to understand themselves.

The problems of the community tend to stand out in progressively bolder relief the farther we move from our own culture, setting aside, as we do, the blinders of our own experience and our own emotional involvements. For this reason and because of my particular international orientation, I take an example from abroad, in the expectation that we may see analogies in our own communities, to indicate the complex skein of forces that interweave within a community.

Sindbis is a crowded, squalid Egyptian village. The streets are narrow, muddy, and laden with refuse. The Rockefeller Foundation addressed itself to the problem of improving health in this village and worked there for 3

years. It was easily demonstrated that infant mortality and therefore general mortality could be sharply reduced by the application of insecticides to control the flies. This, though, was a temporary measure, the flies becoming rapidly resistant to the insecticides. The demonstration pointed to the absolute necessity of improving sanitation if anything significant were to be accomplished.

An Egyptian home is a mud-walled compound off of which open 2 or 3 small, unventilated rooms; a rickety stairway goes up to similar small rooms above. In crowded villages such as Sindbis, the compound is often roofed-over by the upper rooms. In the compound, which measures perhaps 10 by 10 feet, there dwell, in addition to the family, a gamoose (a water buffalo), a sheep or two, and several chickens. These are occupying what to you and me is the living room. In the corner is a pile of dung cakes. The floor is carpeted by the accumulated dung of decades. Meals are cooked over an open fire in a corner of the compound. It would appear that health education in its simplest forms might readily solve such obvious problems. But let's look at some of the factors concerned.

Sindbis is built upon some of the most precious land in the world. In Egypt, on 13,000 square miles of arable land, 23,000,000 people, 1,800 people per arable square mile, are attempting to eke out an existence. It is not possible for Sindbis to expand laterally over such precious land, nor, since the only available building material is mud or sun-dried brick, can it extend vertically. A second story is risky; a third story, impossible. On May 12 and 13, 1945, rain in parts of the Delta, the only rain I ever saw in Egypt, washed away such villages as this.

If we cannot provide better housing within the locally available resources, then we can at least clean out the dung. But this approach also presents problems. The dung is one of the family's most important assets, both for fertilizer and for fuel. It cannot be risked outside but must be kept under guard.

Then let us move the animals out. Did you ever suggest to your own family the possibility of getting rid of your own dog? The eyes of a gamoose, I can testify, are infinitely more

soulful than even those of a basset hound. There is a deep emotional, as well as economic, attachment to the gamoose. He is part of home and he has been so through the ages. Herodotus in 500 B. C. wrote, "All other men pass their lives separate from animals; Egyptians have animals always living with them."

Thus, in attempting to activate the people of Sindbis, we immediately run into economic considerations of the greatest moment, long-established habits and cultural patterns, and sociological problems.

Universality of the Basic Forces

The same basic forces operate in every community. We would not have a gamoose in our homes, but we do have dogs. Dogs are carriers of rabies, hydatidosis, and flukes whereas, as far as I know, the gamoose is quite an innocent beast. Despite this, we cannot view a dog with the same objectivity with which we view a gamoose.

Herodotus helps us establish the fact that this blindness is not a new thing. He tells us: "Thus it appears certain to me, by a great variety of proofs, that Cambyses was raving mad; he would not else have set himself to make a mock of holy rites and long-established usages. For if one were to offer men to choose out of all the customs in the world such as seemed to them the best, they would examine the whole number, and end by preferring their own; so convinced are they that their own usages far surpass those of all others. Unless, therefore, a man was mad, it is not likely that he would make sport of such matters. That people have this feeling about their laws may be seen by very many proofs: among others, by the following. Darius, after he had got the kingdom, called into his presence certain Greeks who were at hand, and asked what he should pay them to eat the bodies of their fathers when they died. To which they answered that there was no sum that would tempt them to do such a thing. He then sent for certain Indians, of the race called Callatians, men who eat their fathers, and asked them, while the Greeks stood by, and knew by the help of an interpreter all that was said, what he should give them to burn the bodies of their fathers at their decease. The Indians ex-

claimed aloud, and bade him forbear such language."

We can easily overlook in our own environs what might be obvious aberrations when viewed dispassionately by an outsider, unless we apply the critical tools of science to our own behavior and that of our own communities. The answers to the problems of Sindbis are yet to be found, but we have in our own community the laboratory in which the basic principles involved may be better understood.

What are some of these matters as we face them in our own communities?

The cult of success drives us Americans inexorably towards the vice-presidency of the firm. En route we deposit in our arteries great hunks of cholesterol, consumed at feasts paid for by a grateful firm. Or we build up a great head of pressure striving to be foreman of the gang, principal of the school, or State health officer, ignoring what we know, or think we know, of the dangers to our gastric mucosa. This is cultural pressure, our own culture. Can we modify the culture or adjust man to it? Do we preach laziness and apathy? Do we give tranquilizing drugs? Or is there some other way? Daily we drive headlong to our own destruction on the highways. You know this grim story, but who of us has never bragged of the speed he made on some trip? Our culture commends us, if only we keep out of jail. Coronary disease is not all chemistry, and highway safety is not all engineering. They involve man and his behavior in a cultural setting.

The problems of convincing communities to fluoridate water, or parents to bring only certain of their children for a widely touted vaccine, or a woman to palpate her breasts when horror struck that she might feel a fatal lump are examples of problems here at home that have in them, somewhere, answers to fundamental problems of men's relations and motivations.

I have been deeply impressed through the years with the sameness of motivations and responses among people of widely differing cultures. The differences to a large extent are superficial. Being exotic, they tend to impress us overmuch. Members of this college deal almost daily with colleagues from other lands. I trust you find a deep sameness in them. If

this be the case, it is possible to understand the points of difference and to prepare to meet and reconcile them.

Profound problems arise, problems we can only suggest in this presentation. For example, is action always to be preferred over apathy? F. S. C. Northrop of Yale, Edmund Taylor in his *Richer by Asia*, and many others have considered how we might attain some profitable fusion of the philosophies of the East with those more characteristic of the West, a reverse point 4 in philosophy perhaps. They suggest that a more intensive search for karma or nirvana might modify the intensity of the search for space and substance, for land and dollars. Such questions have their social and economic implications which are subject to analysis and indeed measurement in economics, which is perhaps the most adult of the social sciences.

If we accept a wholly activist philosophy, then action must be purposeful and the purpose, as well as the results of attainment of the purpose, must be examined. Purposes often seem self-evident. We accept the urgent need for rapid economic development as a truism. But Munoz-Marin, the Governor of Puerto Rico, who has given such magnificent leadership to Operation Bootstrap which has raised Puerto Rico from a slum to a guiding star of progress, has recently offered a tantalizing suggestion. He has proposed an Operation Serenity, through which society "would use its economic power increasingly for the extension of freedom, of knowledge, and of the understanding imagination rather than for a rapid multiplication of wants." When asked how he would accomplish Operation Serenity he said, "I have let a bird into the air."

Avenue of the Social Sciences

Public health must consider how best to address itself to these matters. As already suggested, the social sciences provide the main avenue of the present for applying to these great social problems the techniques and concepts which have carried us so far in the natural sciences, in the hope, of course, that new and special techniques and concepts of a fundamen-

tal character will emerge, in the hope that the social sciences will have their Galileo, their Newton, their Darwin—or will it be a Michaelangelo or a Milton?

The field is being plowed. A number of schools of public health have social scientists on their staffs.

The Health Information Foundation in the 1955 edition of its *Inventory of Social and Economic Research in Health* listed 398 active research projects.

The Social Science Research Council has established the Committee on Preventive Medicine and Social Science Research, which is attempting, slowly but with steady progress, to identify and direct attention to areas requiring fundamental research. Shortly, it plans to begin the publication of documents emerging from its discussions with specialists in a number of fields.

A separate but closely related development of first importance is the creation of the Joint Committee on Public Health and the Behavioral Sciences by the American Public Health, Anthropological, and Psychological Associations and the American Sociological Society. This committee is attempting to lower the barriers existing between the public health professions and the social sciences through the organization of campus seminars, workshops, and newsletter abstracts and other publications.

Summary

Public health physicians have at hand in their own communities on a manageable scale the problems of human and community relations which are today harassing the world. At the same time social scientists in increasing numbers are at hand, on neighboring university campuses, in business enterprises, and in departments of government. Thus the tradition of team work in public health need not be stretched far in an effort to delve thoughtfully and deeply into these problems. The answers found will be a part of the storehouse of knowledge and concept that must lead through these troubled times into a more orderly future.